

In re Application of:
Jean-Pierre Issa
Application No.: 09/398,522
Filed: September 15, 1999
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PATENT
Attorney Docket No.: JHU1590

In the Claims

Please cancel claims 13, 14, and 15 without prejudice.

Please enter the following rewritten claims:

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- E1
10. (Twice amended) A method for detecting a cancer associated with APOB, CACNA1G, CDX2, EGFR, FBN1, GPR37, HSPA6, IQGAP2, KL, PAR2, PITX2, PTCH, SDC1 or SDC4 comprising:
- a) contacting a nucleic acid-containing specimen from a subject with an agent that provides a determination of the methylation state of at least one CpG island of a gene or associated regulatory region of the gene;
wherein the gene is selected from the group consisting of APOB, CACNA1G, CDX2, EGFR, FBN1, GPR37, HSPA6, IQGAP2, KL, PAR2, PITX2, PTCH, SDC1, SDC4 and combinations thereof and
 - b) detecting hypermethylation of a region of the gene or regulatory region, wherein hypermethylation of a region as compared to the same region of the gene or associated regulatory region in a subject not having said cancer is indicative of the cancer.
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E2

16. (Amended) The method of claim 33, wherein the regions comprise regions 1-2 of CACNA1G.

17. (Amended) The method claim 33, wherein the regions comprise regions 5-7 of CACNA1G.

18. (Amended) The method claim 33, wherein the regions comprise regions 3, 4 and 8 of CACNA1G.

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3 24. (Amended) The method of claim 10, wherein said cancer is selected from the group consisting of astrocytoma, glioblastoma, medulloblastoma, gastric cancer, colorectal cancer, acute myelogenous leukemia, lung cancer, renal cancer, leukemia, breast cancer, prostate cancer, endometrial cancer and neuroblastoma.

Please add the following claims:

E4 --33. A method for detecting a cellular proliferative disorder associated with hypermethylation of CACNA1G, the method comprising contacting a nucleic acid-containing specimen from a subject with an agent that provides a determination of the methylation state of a CACNA1G CpG island comprising any of SEQ ID NO:35-42, wherein hypermethylation of the CACNA1G CpG island is indicative of the presence of the cellular proliferative disorder, thereby detecting the cellular proliferative disorder.

34. The method of claim 33, wherein the CpG island comprises SEQ ID NO:35, 36, 39, 40 and 41.

35. The method of claim 33, wherein the agent is a primer pair that hybridizes to the CACNA1G CpG island.

36. The method of claim 35, wherein the primer pair is selected from SEQ ID NO:33 and 34; SEQ ID NO: 35 and 36; SEQ ID NO:37 and 38; SEQ ID NO:39 and 40; SEQ ID NO:41 and 42; SEQ ID NO: 43 and 44; SEQ ID NO: 45 and 46; SEQ ID NO:47 and 48; and SEQ ID NO:49 and 50.

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37. The method of claim 33, wherein the cellular proliferative disorder is colorectal cancer, colorectal adenoma, gastric cancer, lung cancer, breast cancer, hematopoietic tumors, prostate cancer, or acute myeloid leukemia (AML).

38. The method of claim 33, wherein the cellular proliferative disorder is astrocytoma, glioblastoma, medulloblastoma, lung cancer, renal cancer, endometrial cancer or neuroblastoma. --
